ROYAK, S.M., prof.; PIROTSKIY, V.Z., inzh.

Effect of certain physicochemical properties of portland cement clinkers on their resistance to grinding and the granular composition of cement. Trudy NIITSement no.19:3-29 '63. (MIRA 17:11)

PANEVA-KHOLEVICH, E.; PIROV, D.

Analysis of 168 tumors of the bone treated in the Clinic of Orthopedics and Traumatology of the Institute of Post-Graduate Training during 1951-1960. Khirurgiia, Sofia 14 no.2/3:301-303 '61.

(BONE AND BONES neopl)

PIROV, G. D.

Second Congress of Soviet psychologists. Spisanie BAN 8
no. 4: 35-43 '63.

1. Corresponding Member of the Bulgarian Academy of Sciences.

PIROV, G. D. (Sofiia)

International symposium on genetic psychology. Spisanie BAN 6 no.2: 97-101 '61.

1. Chl. kor. na Bulgarskata akademiia na naukite i Sofiiski universitet.

PIR'OV, Gencho

State and problems of psychological science in Bulgaria. Spisanie BAN 8 no.2:31-45 '63

1. Chl.-kor. na Bulgarskata akademiia na naukite.

PIROV, Gencho Dimitrov, prof. (Sofiia)

First Congress of the Societies of the Soviet Psychologists.
Spisanie BAN no.4:95-102 '59. (EEAI 9:11)
(Russia--Psychology)
(Bulgarians in Russia)

PIROV, G.P.

Psychological science in Poland. Spisanie BAN 7 no.4:96 [illegible]
[illegible]

1. Chl.-kor. na Bulgarskata akademiia na naukite.

PIR'OV, G.D.

Teaching child psychology and educational psychology. Vop. psikhol. 4 no.2:139-142 Mr-Ap '58. (MIRA 11:5)

1. Zaveduyushchiy kafedroy pedagogiki filosofsko-istoricheskogo fakul'teta Sofiyskogo universiteta.

(Psychology--Study and teaching)

S/121/60/000/012/012/015
A004/A001

AUTHOR: Pirovich, L. Ya.

TITLE: Checking the Presence of Small-Diameter Holes Machined on Automatic Transfer Lines and Unit-Head Machine Tools

PERIODICAL: Stanki i Instrument, 1960, No. 12, pp. 28-29

TEXT: Generally holes of sufficiently large diameter are checked with the aid of feeler gages. This method cannot be expediently applied if small-diameter holes, particularly those of great depth, are concerned, since the long and thin feeler gages are easily broken even at small stresses. Therefore methods have been developed to check the tool, either by way of contact or contactless. The author mentions the contactless checking method of Messrs. Buhr Machine Tool (USA) for the drilling of oil channels 6.35 mm in diameter and 196.9 mm in length. Figure 1 shows a schematic of this method using special induction pickups for the detection of broken drills.

Figure 1:
1 - induction pickup; 2 - guiding jig bush; 3 - bearing bush; 4 - position of drill if head is removed up to the end.

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S/121/60/000/012/013/015
A004/A001

Checking the Presence of Small-Diameter Holes Machined on Automatic Transfer Lines and Unit-Head Machine Tools

Figure 1:

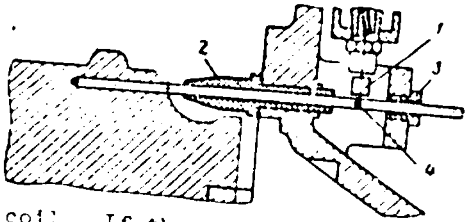

Figure 2 shows a contactless checking device employed by Messrs. Cross (USA) in one of their latest automatic transfer lines. This device is fixed on jig plates. Checking of the tool is effected during its passing the device and after the machining operation. The new Protect-O-Tool protector is composed of a coil producing a magnetic field the oscillations of which discontinue during the passing of the tool through the coil. If the tool breaks and remains in the component being machined, the oscillations of the field are renewed and the location of the breakdown is signalled to the control panel. The author also mentions the checking device of the English firm Messrs. Airmec which transmits signals if drills, taps and broaches are broken. The SKB-8 of the Minskiy zavod avtomaticheskikh liniy (Minsk Plant of Automatic Transfer Lines) has developed a contact checking method and introduced it in the ЛМ36 (LM36) and ЛМ37 (LM37) automatic lines. The device shown in Figure checks drills 3 - 5 mm in diameter machining holes of up to 80 mm depth. The

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S/121/60/000/012/011/015
A004/A001

Checking the Presence of Small-Diameter Holes Machined on Automatic Transfer Lines and Unit-Head Machine Tools

checking device is mounted on the spindle box. The power heads carrying the spindle boxes with two tools being checked operate according to the following cycle: rapid approach, machining operation, rapid retraction.

Figure 4:

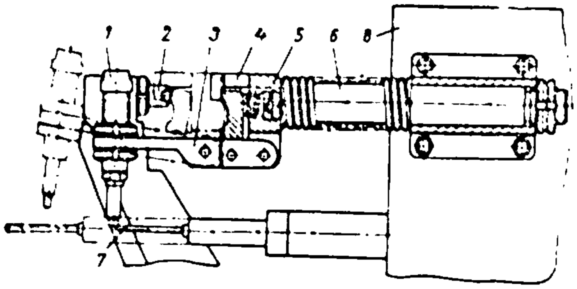

Figure 4:

1 - electric-contact pickup; 2 - stationary stop for removing the pickup from the tool; 3 - slewable bracket; 4 - stop limiting the slewing of the bracket; 5 - cleat; 6 - rod; 7 - drill; 8 - spindle box.

The author describes the operation of this device. There are 5 figures.

Card 3/3

PIROVICH, L.Ya.

Checking the presence of small-diameter holes machined on automatic lines and machine-tool units. Stan.i instr. 31 no.12:28-29 D '60. (MIRA 13:11)

(Electric instruments)

OGRELIK, G.I.; PIROVICH, L.Ya.

Standardization of units and parts promotes the improvement of machinery. Standartizatsiia 29 no.6:14-16 Je '65. (MIRA 18:12) [illegible]ich, L.Ya.

My comments. Standartizatsiia [illegible] no.4:41 [illegible]

[illegible]

[illegible]

"The Protective [illegible] ([illegible]) [illegible]", [illegible]

Report U-15[illegible], [illegible].

PIROZEK, JANINA.

PIROZEK, JANINA. Bibliografia geologiczno-gleboznawcza Tatr 1639-1953. (Wyd. 1.) Warszawa, Wydawn. Geologiczne, 1956. 170 p. (Warsaw. Panstwowy Instytut Geologiczny. Biuletyn, 111) (Bibliography of works on geology and soils of the Tatra Mountains, 1639-1953. 1st ed. maps)

ATLAS POLSKICH STROJOW LUDOWYCH.
Poland

So: East European Accession, Vol. 6, No. 5, May 1957

YENDRIKHOVSKAYA, A.T.; PIROZHENKO, A.V.

Fixing automatic feelers on tenter dryer frames. Obm.tekh. opyt. [MLP] no.10:37-38 '56. (MIRA 11:11)
(Textile machinery--Attachments)

MOROZOV, A.A.; PIROZHENKO, A.V.

Cold dyeing without drying of the azotol-treated fabric. Obm. tekh.opyt. [MLP] no.10:8-9 '56. (MIRA 11:11)
(Dyes and dyeing--Cotton)

PIROZHENKO, A. V.

3

①

Indelible finishes. ✓A. V. Pirozhenko. *Tekstil. Prom.* 10, No. 9, 33-4(1950).—Indelible finishes obtained by treating the fabric with oxyethylcellulose, a soln. of linters in $Zn(ONa)_2$, or with various types of latex are still in the exptl. stages.

Elisabeth Barabash

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

25

[Textile] size made of rye and wheat flour. A. V. Piroshenko. *Tekstil'naya Prom.* 3, No. 6, 13-15(1943).—Plant-scale expts. were made on cooking a size of wheat and rye flour and using lime instead of caustic soda. In some sizes, fats were incorporated as soap emulsions or liquid soap was used. These sizes tested in production gave very satisfactory results. Even when no fats were incorporated the size did not stick to the rolls of the sizing machines or to the drying drums. Sizes contg. fats in which lime replaced NaOH gave satisfactory results; sizes made with lime but without fats were less satisfactory.

M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PI[illegible], V.V. [illegible]

[illegible] [illegible]
Eksp. khir. [illegible] anes[illegible]

PIROZHKOV, B.I.

Dilatometric study of the vitrification of amorphous isomers.
Fiz. tver. tela 7 no.2:668-670 F '65.
(MIRA 18:8)

1. Permskiy gosudarstvennyy universitet imeni Gor'kogo.

[illegible], Fedor Vasil'yevich; [illegible], S.N., red.

Avtomat[illegible] setevykh [illegible] skhemy avtomaticheskoy [illegible]. Moskva, Transport, 19[illegible]. 163 p. (MIRA [illegible])

PENKIN, N.F.; PIROZHKOV, F.V., inzh., retsenzent; MARENKOVA, G.I., inzh., red.; KHITROVA, N.A., tekhn. red.

[Centralized traffic control] Dispetcherskaia tsentralizatsiia. Moskva, Transzheldorizdat, 1963. 359 p. (MIRA 17:1)

L 36974-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD S/0186/64/006/004/0440/0444 13 B
ACCESSION NR: AP4043851

AUTHOR: Zaytsev, A. A.; Lebedev, I. A.; Pirozhkov, S. V.; Yakovlev, G. N.

TITLE: Extraction of technecium from nitric acid solutions by phosphoric acid derivatives and trioctylamine 27

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 440-444

TOPIC TAGS: technecium extraction, organic phosphate, tributyl phosphate, trioctylamine, alkyl amine, phosphine oxide, trioctyl phosphine oxide, methylphosphonic acid

ABSTRACT: Studies on the extraction of the short-lived radioactive isotope Tc-99 by a variety of organic phosphates, phosphonic acid esters and amines showed that technecium cannot be extracted from 0.1-4 M HNO_3 solutions by acidic reagents. High distribution coefficients were obtained, however, with neutral phosphates such as tri-n-octylphosphine oxide, diisoamylmethylphosphonate and tributyl phosphate, and especially with trioctylamine. The degree of extraction was found to depend on both the HNO_3 concentration and the concentration of organic extractant; thus, the highest distribution coefficients were obtained with 0.1 M HNO_3 in the case of

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L 36974-65

ACCESSION NR: AP4043851

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trioctylphosphine oxide and trioctylamine but with 0.5-1 M HNO_3 in the case of tributylphosphate and diisoamylmethylphosphonate. Studies on the extraction of Tc by diisoamylmethylphosphonate from $HNO_3/NaNO_3$ solutions in which the pH was varied but the ionic strength was kept constant showed that the distribution coefficient is independent of the pH but is proportional to the 2.2-3.2 power of the diisoamylmethylphosphonate concentration. After extraction of Tc with these organic solvents, it can best be isolated by extraction with ammonia; in the case of tributyl phosphate, this reextraction is difficult, which impairs the usefulness of this extractant. Orig. art. has: 6 tables, 3 figures and 1 formula.

ASSOCIATION: None

SUBMITTED: 02Jan63 **ENCL:** 00 **SUB CODE:** IC

NO REF SOV: 004 **OTHER:** 002

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L 36975-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD
ACCESSION NR: AP4043852 S/0186/64/006/004/0445/0448 13

B

AUTHOR: Zaytsev, A. A.; Lebedev, I. A.; Pirozhkov, S. V.; Yakovlev, G. N.

TITLE: Extraction of technecium (VII) from alkaline solutions by pyridine derivatives

27

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 445-448

TOPIC TAGS: technecium extraction, uranium fission product, pyridine derivative, neutron bombardment, distribution coefficient, alkali cation, sodium nitrate

ABSTRACT: In a continuation of work on the purification of radioactive technecium (Tc-99, prepared by bombardment of molybdenum with neutrons) by extraction procedures, the authors investigated the extraction of heptavalent Tc from alkaline solutions by 4 different pyridine derivatives: 2-methylpyridine, quinoline, 2,4-dimethylpyridine, and 2-methyl-5-ethyl-pyridine. Most attention was paid to the last 2, since these were found to be the most convenient to use, even though 2-methylpyridine yielded even higher distribution coefficients in most media. A study of the effect of the pH and the nature of the alkali cation on the distribution coefficient of Tc showed that optimal extraction by 2,4-dimethylpyridine and 2-methyl-5-ethylpyridine is obtained from 1-3 M NaOH, and that even better extraction is

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L 36975-65
ACCESSION NR: AP4043852

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possible from LiOH solutions; i.e., the distribution coefficients decreased in the order: Li > Na > K > NH_4 > Rb > Cs. Other studies showed that the addition of Na_2CO_3 contributed to better extraction of Tc, while addition of $NaNO_3$ decreased the distribution coefficients considerably. Comparative studies on the extraction of some uranium fission products (Zr, Mo, Ru, Cs and Pm) by 2-methyl-5-ethylpyridine from ammonium carbonate solution showed very low distribution coefficients in all cases, indicating that a rather high degree of purification of Tc can be achieved in this way. The Tc can be isolated (reextracted) from the pyridine derivatives either by steam distillation of the solvent of by extraction with water or alkaline solution after dilution of the solvent with benzene, dichloroethane or chloroform. Orig. art. has: 1 figure, 5 tables and 1 formula.

ASSOCIATION: None

SUBMITTED: 02Jan63 ENCL: 00 SUB CODE: IC

NO REF SOV: 002 OTHER: 005

Card 2/2

ZAKHARCHENKO, I. G.; PIROZHENKO, G. S.; SUKHOBRUS, S. V.

Effect of monocultural crops on soil fertility. Pochvovedenie no.7:10-18 Jl '62. (MIRA 15:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya, Mironovskaya opytnaya stantsiya.

(Crops and soils)

KULINOV, Aleksandr Ivanovich; PIROZHNIKOV, L.B., nauchn. red.;
TABUNINA, M.A., red.; BORODNEV, N.K., tekhn. red.

[Devices for technological control in the production of concrete and reinforced concrete work and precast reinforced concrete elements] Pribory dlia tekhnicheskogo kontrolia pri proizvodstve betonnykh i zhelezobetonnykh rabot i sbornykh zhelezobetonnykh konstruktsii. Moskva, Gosstroiizdat, 1963. [illegible] p. (MIRA [illegible])

PIROZHENKO, F.L., master

New charge mixture for electric furnaces. Metallurg [illegible] no.[illegible] 3-[illegible] Jl '62. (MIRA [illegible])

1. Fasonnoliteynyy tsekh zavoda "Azovstal'".
(Electric furnaces--Equipment and supplies)

POPOV'YANTS, R.S.; PIROZHENKO, V.V.

Operative treatment of closed trauma of the diaphragmatic surface of the liver. Vest. khir. 84 no. 4:39-42 Ap '60. (MIRA 14:1)
(LIVER--WOUNDS AND INJURIES)

PIROZHIKHIN, V.I., polkovnik

Give full support to efficiency promoters and inventors. Vest. protivovozd.obor. no.2:57-58 F '61. (MIRA 14:2)
(Military education—Technological innovations)

[illegible]

PIROZHENKO, F.I.

Using coke gas for drying the crown of an electric furnace.
Sbor.rats.predl.vnedr.v proizv. no.1:13-14 '61. (MIRA 14:[illegible])

1. Zavod "Azovstal'".

(Electric furnaces)

PIROZHENKO, P.L., master

Photorelay of electric lighting. Metallurg 9 no.4:41 Ap '64. (MIRA 17:9)

1. Fasonno-liteynyy tsekh zavoda "Azovstal'".

PIROZHENKO, V.Kh., inzh.; LINCHEVSKIY, G.V., inzh.; NIKOLAYENKO, N.T., inzh.

Automatically controlled mine traction substation using transistors. Gor. zhur. no.5:69-70 My '63. (MIRA 16:5)

1. Gosudarstvennyy institut po proyektirovaniyu po dobyche i obogashcheniyu rud, g. Krivoy Rog.
(Electric substations)

PIROZHENKO, V.V.

Functional disorder of the liver in acute and chronic appendicitis [with summary in English]. Khirurgiia 34 no.10:127-134 O'58 (MIRA 11:11)

(APPENDCITIS, compl.
funct. liver disord. (Rus))
(LIVER DISEASES, etiol. & pathogen.
appendicitis causing funct. disord. (Rus))

MIROSHENKO, V. V., Capt. Med. Serv.

"Treatment of Burns," Voyenno-Meditsinskiy Zhurnal, No. [illegible], August [illegible].

PIROZHENKO, V.V. (Voroshilov, Primorskogo kraya)

Functional treatment of fractures of the clavicle. Ortop., travm. i protez. 18 no.2:57-58 Mr-Ap '57. (MLRA 10:8)
(CLAVICLE--FRACTURE)

PIROZHENKO, V.V. (Voroshilov, Primorskogo kraya)

Splint for the treatment of fractures and dislocations of the clavicle. Ortop.travm.protez.,Moskva, no.1:74 Ja-F '55.(MLRA 8:10)

(CLAVICLE, fractures,
ther.,splints)
(CLAVICLE, dislocations,
ther.,splints)
(DISLOCATIONS,
clavicle, splinting)
(FRACTURES,
clavicle, splinting)

VINTER, Ye.; PIROZHINSKIY, Z. (Varshava)

New procedure for the distribution of the profits of socialist enterprises in the Polish People's Republic. Fin.SSSR 20 no.2: 69-75 F '59. (MIRA 12:4)

(Poland--Profit)

DZYUBENKO, V.T., kand. tekhn. nauk; ZVORYGIN, [illegible].V.; FIROZHKOV, G.I., kand. tekhn. nauk

Further improvement of shield support for mining thick steep seams. Ugol' 40 no.6:22-24 Je '65. (MIRA [illegible])

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Dzyubenko, Zvorygin). 2. Novosibirskiy institut inzhenerov zheleznodorozhnogo transporta (for Firozhkov).

24(7), 7(3), 5(4)

AUTHORS: Pirozhnaya, L. N., Popova, G. S. SOV/48-2[illegible]-10-[illegible]

TITLE: The Application of Infrared Spectroscopy for the Investigation of Thermal Aging of Polyvinyl Chloride

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol [illegible], Nr 10, pp 1202-1204 (USSR)

ABSTRACT: The aging of polyvinyl chloride (PVC) has already been treated by numerous articles in the course of the last ten years. It was determined chemically that in the course of this aging process HCl is split off. The absorption spectra in the ultraviolet and in the visible regions serve for the control of the aging rate of PVC; by means of infrared spectra the C=O- and the O-H-groups were determined in PVC. The present paper gives some data concerning the aging of PVC, which was found by means of infrared spectroscopic methods. The investigations were carried out within the range of 1500 - 1800 cm^{-1}, which is especially suited for this purpose because in this range PVC has no absorption, so that the bands of the aging products (two bands with maxima at 1610 and 1720 cm^{-1}) occur alone (Fig 1). The former is usually attributed to conjugate C=C groups. A PVC aged at 185° in air also has bands

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at 700 - 900 cm^{-1}, which are attributed to aromatic compounds. It is known from publications that the C=O groups absorb within the range of 1650 - 1800 cm^{-1}. In PVC aged under various conditions absorption bands were found within this range with the frequencies 1680, 1700, 1720, 1735 and 1765 cm^{-1}. These frequencies are (according to publications), in the case of oxygen containing hydrocarbon derivatives, attributed to the C=O-groups conjugate with C=C-and C=O-groups in acids, ketones, aldehydes, in vinyl esters and anhydrides. The content of these groups as well as of C=C-groups in PVC depends on the temperature and the duration of the aging process. The agings carried out at 185° (duration 17, 30 and 50 hours) show that with increasing duration, the intensity of the bands with 1775 and 1610 cm^{-1} increases compared to the 1720 cm^{-1}-band. Figure 2 shows the dependence of the infrared spectra on the aging temperature. With increasing temperature the absorption maximum of the C=O groups is shifted towards lower frequencies, the 1610 cm^{-1}-band becomes

The Application of Infrared Spectroscopy for the Investigation of Thermal Aging of Polyvinyl Chloride

SOV/48-23-10-1?/39

more intense, and the 1765 cm^{-1}-band becomes weaker. Further details are discussed and a number of data is given. Figure 3 shows three PVC spectra obtained under totally different aging conditions. The authors finally thank V. M. Chulanovskiy for advice and discussions. There are 3 figures and 3 references.

Card 3/3

[illegible]

[illegible]

PIROZHENKO, V.V.

Tracheal cyst of the mediastinum. Vest.khir. 85 no.10:113-115 O '60. (MIRA 13:12)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey (nach. - prof. P.A. Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii im. C.M. Kirova.

(MEDIASTINUM--TUMORS) (CYSTS)

PIROZHIKHIN, V.I., polkovnik

Strict discipline guarantees exemplary utilization of materiel. (MIRA 14:8)
Vest.protivovozd.obor. no.9:48-51 S '61.
(Military discipline) (Radar, Military)

PIROZHNIKOV, L.B.; VAYNSHTOK, I.S.

Ultrasonic detection of laminations in metal without surface treatment.Zav.lab.21 no.10:1198-1200 '55. (MLRA 9:1)

1.Moskovskoye rayonnoye proizvodstvennoye upravleniye tresta "Soyuzteplokontrol'".
(Metals--Testing)

PIROZHKOV, B.I.

Measuring the velocity and absorption of sound in solids.
Prib. i tekh.eksp. 6 no.4:104-106 Jl-Ag '61. (MIRA 14:9)

1. Permskiy gosudarstvennyy universitet.
(Sound—Measurement)

L 38618-65

ACCESSION NR: AP5005329 S/0181/65/007/002/0668/0670

1/B

AUTHOR: Pirozhkov, B. I.

TITLE: Dilatometric investigation of vitrification of amorphous isomers

SOURCE: Fizika tverdogo tela, v. 7, no. 2, 1965, 668-670

TOPIC TAGS: amorphous substance, glass formation, thermal expansion coefficient, carbohydrate, isomer

ABSTRACT: To help establish the correspondence between the structure of amorphous substances and physical properties, the author has investigated by a dilatometric method the vitrification of three amorphous hydrocarbon isomers (mannose, glucose, and galactose) whose molecules differ only in the different spatial arrangement of the OH group. The elongation was measured with an interference dilatometer, a brief description of which is given. The elongation measurement accuracy was $\lambda/20$ or 2.7×10^{-5} mm, amounting to 3×10^{-4}% of the length of the sample. All samples were first kept for 0.5--1 hour at a temperature 12--15° higher than the vitrification temperature, in order to establish the equilibrium structure for this

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ACCESSION NR: AP5005329

temperature. The sample was then cooled in steps of 1--2° at a rate of 2--4°/hr, with the shift of the interference pattern relative to the sight line examined under a microscope. The dimensions of the sample stopped changing when the interference pattern stopped moving for a sufficiently long time. The results show that the three amorphous isomers have nearly equal but different vitrification temperatures θ_g. At temperatures below θ_g the coefficients of linear expansion are the same, but above θ_g the substances have also the same linear-expansion coefficient, but its value increases by a factor of almost three times. It is concluded that the difference in the spatial arrangement of the OH group in the hydrocarbon molecule, leading to the formation of the different isomers, results in only a small change in θ_g. This difference is not manifest in the character of the thermal expansion on both sides of θ_g. "The author thanks M. I. Kornfel'd for a discussion and help." Orig. art. has: 2 figures.

ASSOCIATION: Permskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Perm' State University)

SUBMITTED: 24Sep64	ENCL: 00	SUB CODE: SS, OC
NR REF SOV: 001	OTHER: 001	

Card 2/2

[illegible]

AUTHOR: Pirozhkov, B.I.

TITLE: Measurement of Frequency of Electrical Oscillations in the Range 2 000 - 20 000 c.p.s. Using a Frequency Divider and a Wavemeter (Izmereniye chastoty elektricheskikh kolebaniy v diapazone 2 000 - 20 000 [illegible] pomoshch'yu delitelya chastoty i volnomera)

PERIODICAL: Pribory i Tekhnika Eksperimenta, [illegible], [illegible] (USSR)

ABSTRACT: The measurement of frequencies of electrical oscillations by means of laboratory audio-generators of the type ЗГ-10 or ЗГ-2A introduces large errors usually exceeding ± 2%. A method of measurement of frequencies is described which can increase the accuracy in the given range to ± 0.1%. It consists of the observation on the screen of an electron oscillograph of Lissajous, figures formed by a combination of the measured oscillations (horizontal plates of the oscillograph) with oscillations from a high frequency generator [illegible] through a frequency divider (vertical plates). A block diagram of the scheme is shown in Fig.1. A signal generator [illegible] BГ [illegible] has an inductive output from one of its stages (ГКЗ- 100 valve) which can be used for frequency measurement using a resonance wavemeter of the type

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Measurement of Frequency of Electric Oscillations in the Range 2 000 - 20 000 c.p.s. Using a Frequency Divider and a Wavemeter.

ДВ-2. The generator frequency is continuously variable in the range 130 - 150 kc/s and the oscillations are transmitted via a cable PK-1 to a frequency divider Д4. The latter is constructed (Fig.2) according to the principle given in Ref.1. The oscillations, amplified in the first half of the 6H8, are fed through the condenser C_1 into the 6X6. Positive pulses transmitted by the diode gradually increase the voltage on the capacitor C_2 connected to the grid of the second half of the 6H8 which works as a blocking oscillator. Using the potentiometer R_1 the potential of the cathode of the valve is adjusted so that the blocking oscillator should produce one pulse each time the voltage on the grid rises to the value determined by successive n pulses transmitted on to the capacitor C_2. Thus, a frequency division by a factor of n is obtained. The number n is determined by the ratio of C_1 and C_2 and the magnitude of the potential of the cathode of the valve of the blocking oscillator. Using the values of C_1 and C_2 shown in Fig.2, the potentiometer R_1 allows a

[illegible]

Measurement of Frequency of Electrical Oscillations in the Range 2 000 - 20 000 c.p.s. Using a Frequency Divider and a Wavemeter.

change in n from 4 to 7. The signal produced by the blocking oscillator has a saw-tooth form. When the ratio of the frequency of the blocking oscillator to the measured frequency of the generator ЗГ is equal to an integer the Lissajous figures on the screen of the oscillograph ЭО are in the form of separate, horizontal lines (Fig.3). The picture can be "fixed" by varying the frequency of the generator BГ. When the wavemeter PB is introduced into the field of the generator BГ in order to measure its frequency, the picture on the screen becomes "detuned". It can be re-established when the wavemeter is accurately tuned to the established frequency of the generator. In this case, the measured frequency is equal to:

$$f_{ZG} = f_{VG}/nm,$$

where m is the number of the lines on the screen of the oscillograph and f_{VG} is the frequency measured by the wavemeter.

There are 3 figures and 1 non-Slavic reference.

ASSOCIATION: Molotov State University imeni A.M. Gor'kiy

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120-3-12/35

Measurement of Frequency of Electrical Oscillations in the Range 2 000 - 20 000 c.p.s. Using a Frequency Divider and a Wavelength.

(Molotovskiy gosudarstvennyy universitet im. A.M. Gor'kogo)

SUBMITTED: March 18, 1957.

AVAILABLE: Library of Congress

Card 4/4

PIROZHKOV, G.I., kand.tekhn.nauk

Calculations for reinforced concrete girders according to the exposure of cracks. Trudy NIIZHT no.24:[illegible]-206 '61. (MIRA [illegible])
(Beams and girders)

PIROZHENKO, V.V., kapitan meditsinskoy sluzhby

Treatment of thermal trauma. Voen.-med.zhur. no.8:74-76 Ag '57. (MIRA 10:12)
(BURNS, therapy,
(Rus))

PITSKHELAURI, G.Z., prof.; PIROZHKOV, V.V., kand. med. nauk, zasluzhennyy
vrach GruzSSR (Tbilisi)

P.I.Sobol'shchikov, founder of the Caucasian Medical Society.
Sovet.med. [illegible] no.6:152-153 Je'63 (MIRA 17:2)

[illegible]

MIROSHNIKOV, L.D.; PIROZHNIKOV, L.P.

Occurrence of fossil insects in the Soviet Arctic. Trudy Nauch.-issl. inst. geol. Arkt. 89:139-146 '56. (MIRA 11:1)
(Russia, Northern--Insects, Fossil)

AID P - 2250

Subject : USSR/Aeronautics

Card 1/2 Pub. 135 - 14/19

Author : Not given

Title : Readers' suggestions

Periodical: Vest. vozd. flota, 7, 73-77, Jl 1955

Abstract : In this column readers present their suggestions of technical improvements, as follows: 1. Apparatus for checking quartz. Officer Zozulya, A. F., suggests an apparatus for checking quartz for radio use. Diagram of the apparatus is given. Types of various parts of radio equipment are mentioned. 2. Repair of the apparatus type ARUFOSh-45. Officer Kormil'tsev, V. S., suggests a method of repair of this apparatus which serves for ultra-violet radiation. Diagram. 3. Stripping device for fighter aircraft tires, suggested by Officer Pirozhkov, F. N., Diagrams, graphs. 4. Device for opening amunition boxes, suggested by Filippov, A. V., Diagrams, photo.

Vest. vozd. flota, 7, 73-77, Jl 1955

AID P - 2250

Card 2/2 Pub 135 - 14/19

Institution: None

Submitted : No date

L 37789-66

ACC NR: AP6028835 SOURCE CODE: UR/0097/66/000/003/0035/0038

AUTHOR: Pirozhkov, G. I. (Candidate of technical sciences); Nikitin, V. L. (Engineer)

ORG: none

E

TITLE: Experimental investigation of the behavior of round reinforced-concrete elements subject to bending

SOURCE: Beton i zhelezobeton, no. 3, 1966, 35-38

TOPIC TAGS: reinforced concrete, pipe, material deformation, tensile strength, compressive strength, steel/35GS steel

ABSTRACT: At the Novosibirsk Rail Transport Engineers Institute tests were made on 20 reinforced-concrete pipes intended to function as elements subject to bending in the design of a coal tunnel shield. Designs for such a shield were suggested at one time by the Mining Institute of the Siberian Department of the Academy of Sciences USSR. Experimental investigations were carried out to find the peculiarities in the actual operation of round monolithic and precast reinforced-concrete beams. The article presents the principal findings of these investigations. The calculated carrying capacity of zero-effect pipes was found in all cases to be below actual breaking moments. The closest approximation of experimental data to calculated results was obtained in the determination of theoretical breaking moments with allowance for reinforcement tensile and compressive strength about equal to the mean yield point for 35GS steel (given the corres-

Card 1/2 UDC: 666.982.2-462

L 37789-66
ACC NR: AP6028835

pondingly increased ultimate compressibility of concrete). The carrying capacity of a pipe was found to be not appreciably affected by rapid application of a load or by a 180° turn of the pipe around the longitudinal axis after the load is brought to a normative level or by the presence or absence of a joint. The grade of concrete was found to have a somewhat greater effect on the strength of tubular elements in bending than follows from theory. This effect increases with an increase in the quantity of reinforcement, and the higher the grade of concrete, the greater of the relative effect. An increase in the reinforcement of annular sections was found to effect a greater increase in carrying capacity for stronger concrete than was to be expected from theory. A change in the concrete strength or in the amount of longitudinal reinforcement was found to have no marked effect on rigidity. The height of the compressed zone in the sections of pure bending was in every instance less than half the section height and did not vary significantly with an increase in the load. Cracks appeared gradually as the pipes were loaded, and the distances between the cracks diminished quite regularly, tending towards a certain minimum for rather significant loads.

The authors conclude, "The results of the experiment indicated the possibility of using such pipes in reinforced-concrete tunnel shields. This was subsequently confirmed by production tests." Orig. art. has: 8 figures and 3 tables. [JPRS: 36,581]

SUB CODE: 11, 13, 20 / SUBM DATE: none / ORIG REF: 006

Card 2/2

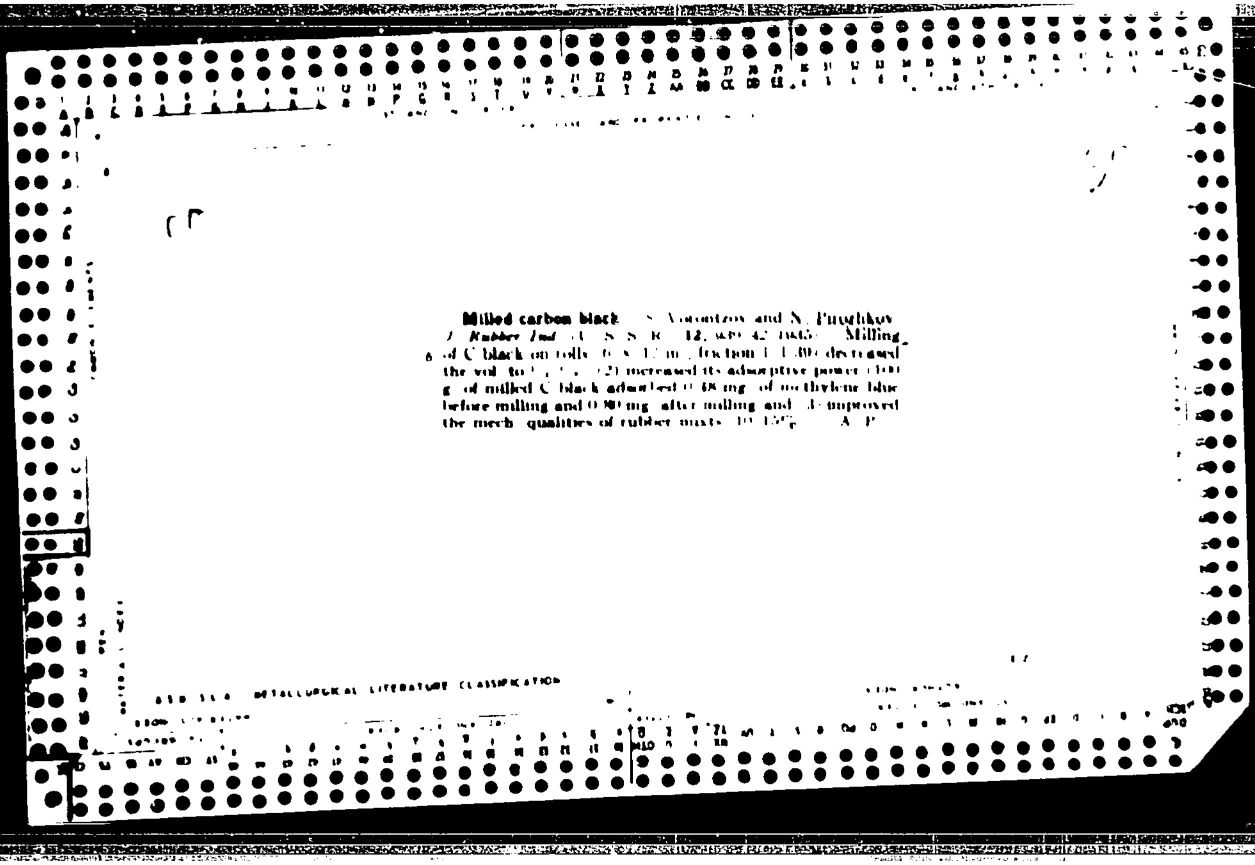
PIROZHKOV, G.I., inzh.

Designing precast concrete slabs covering composed girders for shrinkage. Tranps.stroi. 9 no.12:43-44 D '59.
(MIRA 13:5)

(Bridges, Concrete)

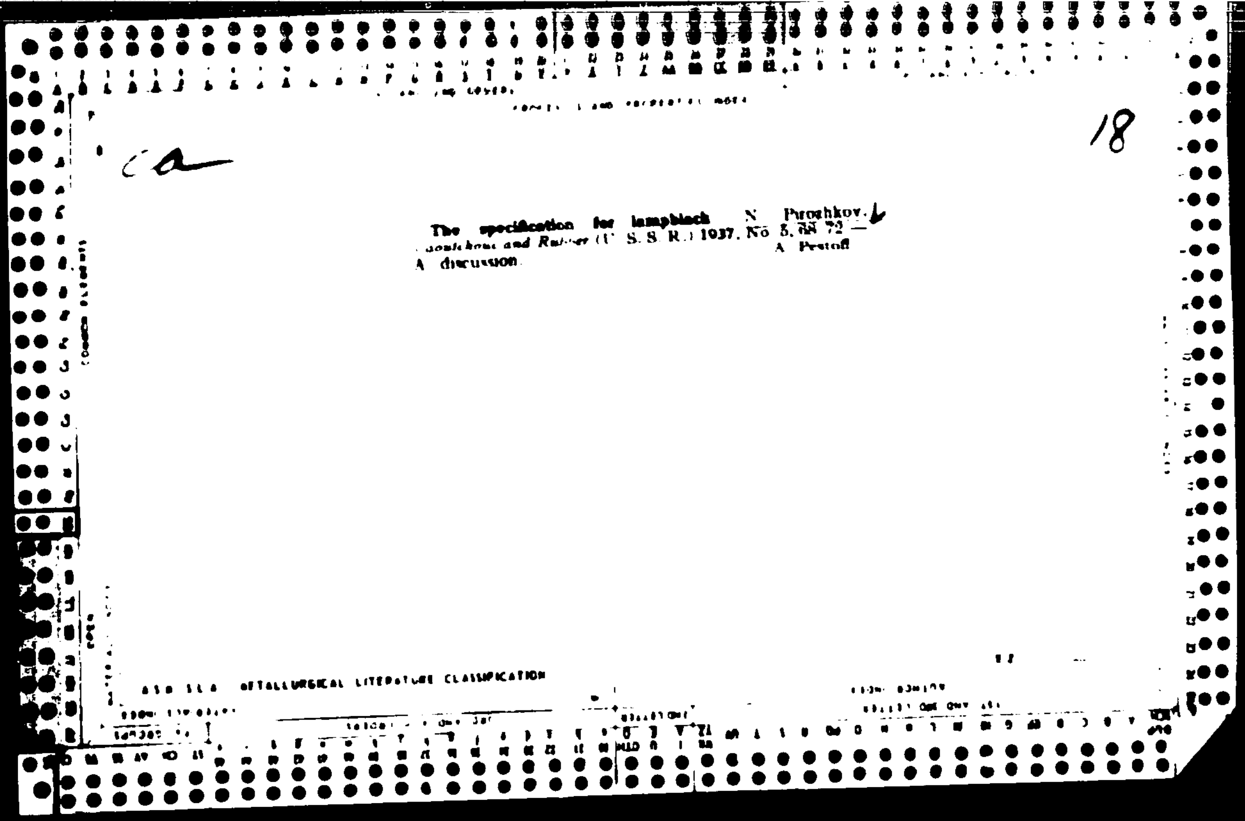
PIROZHKOV, G.I., inzh.

Effect of concrete slab shrinkage on stresses in joint beams.
Transp. stroi. 8 no. 6:18-20 Je '58. (MIRA 11:7)
(Strains and stresses)



Milled carbon black. S. Vorontzov and N. Pushkov. *J. Rubber Ind.* (U. S. S. R.) 12, 40-42 (1935).—Milling of C black on rolls (0.5 × 1.2 m., friction 1:1.30) decreased the vol. to ½, (2) increased its adsorptive power (100 g. of milled C black adsorbed 0.68 mg. of methylene blue before milling and 0.80 mg. after milling) and (3) improved the mech. qualities of rubber mixts. 10-15%. A. P.

METALLURGICAL LITERATURE CLASSIFICATION



ca

18

The specification for lampblack. N. Piroshkov. Caoutchouc and Rubber (U. S. S. R.) 1937, No 5, 68 72 — A discussion. A. Pestoff

METALLURGICAL LITERATURE CLASSIFICATION

Ca

18

A dustless carbon black. N. Pirushkov. *J. Rubber Ind.* (U. S. S. R.) 1936, 604-7 (cf. *C. A.* 27, 6150, 30, 4190). Description and illustration of an app. constructed for continuous production of dustless C black, based on the method of Godfrey L. Cabot Inc. Six references. A. Pestoff

METALLURGICAL LITERATURE CLASSIFICATION

A dustless carbon black. N. Pyushkov. J. Rubber Ind. (U. S. S. R.) 1936, 504; cf. C. A. 27, 5150; 30, 4107. Description and illustration of an app. constructed for continuous production of dustless C black, based on the method of Godfrey L. Cabot Inc. Six references. A. Pestoff

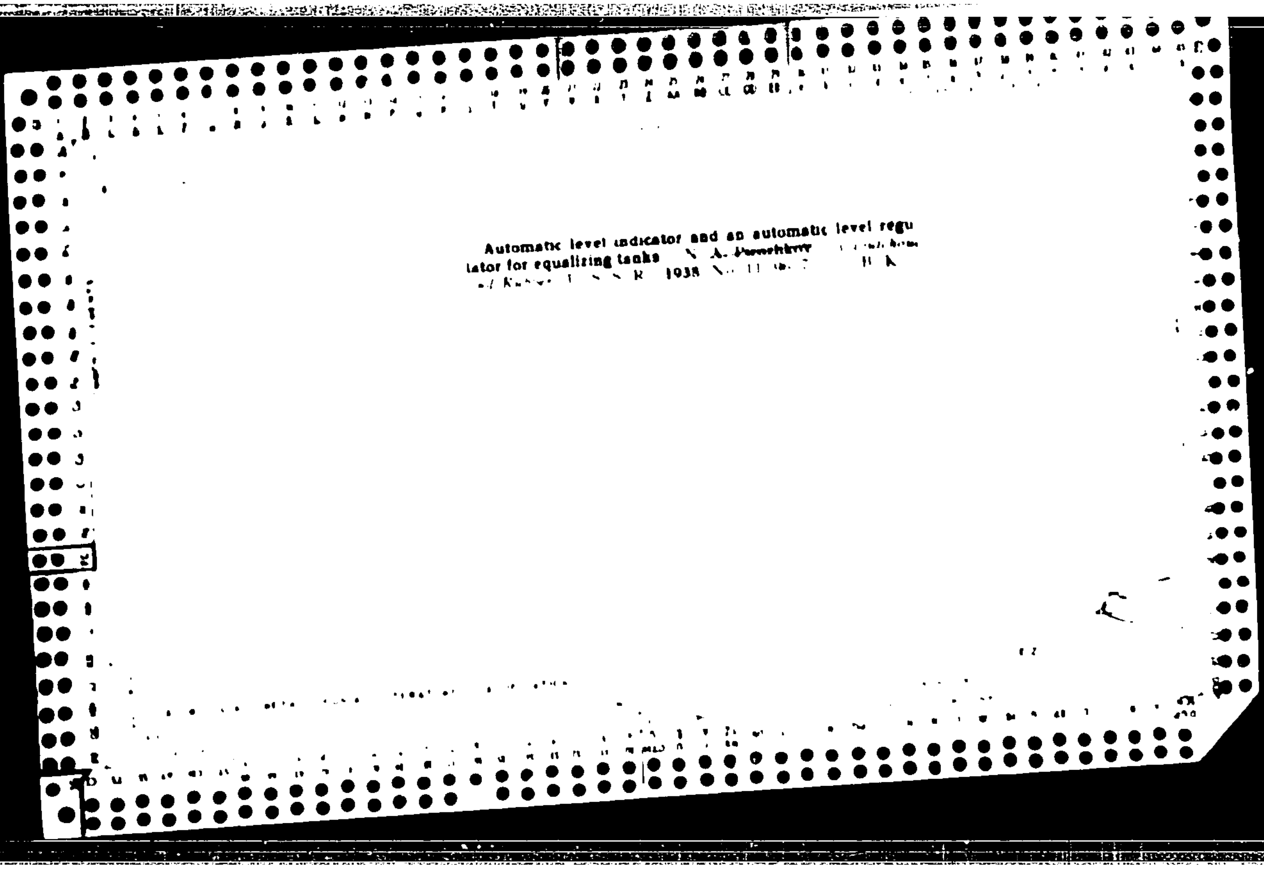
Ca

7

The standard methods of analysis of carbon black adopted by the laboratory of Yaroslavskii carbon black plant. N. Pirozhkov. *Caoutchouc and Rubber* U.S.S.R. 1937, No. 7-8, 81-5.—A mech. method for detg. the vol. of C black in the dry state and in benzene is described. It is shown how the ash can be detd. in 40 min. A. Pestoff

PIROZHKOV, N.A.; MYSHLYAYEV, I.V., retsenzent; PLEMYANNIKOV, M.N., redaktor; STOL'YAKOVA, M.V., tekhnicheskiy redaktor

[Production of carbon black] Proizvodstvo sazhi. Moskva, Gos. nauchno-tekhn. izd-vo legkoi promyshlennosti, 1951. 118 p.
(Carbon black) (MLRA 7:8)



Automatic level indicator and an automatic level regulator for equalizing tanks N. A. [illegible]
[illegible] R 1938 [illegible]

15-1957-7-9065

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 34 (USSR)

AUTHOR: Miroshnikov, L. D., Pirozhnikov, L. P.

TITLE: On the Occurrence of Fossil Insects in the Soviet Arctic Region (O mestonakhozhdeniyakh iskopayemykh nasekomykh na territorii Sovetskoy Arktiki)

PERIODICAL: Tr. n.-i. in-ta geol. Arktiki, 1956, vol 89, pp 139-146

ABSTRACT: Several occurrences of fossil insects are pointed out on the Taymyr Peninsula, in the Noril'sk region, and in the Khatanga basin. The site of Upper Permian insects in the Ust'-Yenisey region, described by Ye. E. Bekker-Migdisovoy (Dokl. AN SSSR, vol 105, Nr 5), is examined.

Card 1/1

O. M. Martynova

PROCESSES AND PROPERTIES INDEX

ca

18

Manufacture of lampblack N. A. Pirozhkov. *Caoutchouc and Rubber* (U. S. S. R.) 1938, No. 11, 95-6

Preheating air to 500-600° and oil to 200-250° to increase the output of lampblack 3 to 4% is proposed. B. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PIROZHKOV, B. A.

Technical standards in machine shop work) Leningrad, Gos. tekhn. izd-vo. 1930. 162 p. (52-56249)

TJ1160. P56

9 2185
24 1800

3928
S/120/62/000/003/038/048
E032/E114

AUTHOR: [illegible], V.A.

TITLE: Recording of the resonance strain-curve of a piezoelectric vibrator

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 160-161

TEXT: The author describes a method of recording the resonance strain curve for the torsional oscillations of a piezoelectric vibrator. It is analogous to that described in a previous paper (Pribory i tekhnika eksperimenta, no.4, 1961, 104) for longitudinal oscillations. It is stated that such a method has not been available in the literature. Fig.1 shows the arrangement employed. The ultrasonic torsional oscillations are produced by the quartz rod Q and the specimen under investigation (not shown in this figure) is rigidly attached to one end of Q. The side surface of the rod Q carries thin metal electrodes whose position relative to the crystallographic axes of the crystal is indicated in Fig.2. Electrodes b lie along the entire length of the quartz rod, while electrodes a are divided into two parts as shown. The rod may be set in torsional

Card 1/3

Recording of the resonance ... S/126/62/000/003/035/046
E032/E114

oscillations by connecting a_1 to b_1 through an oscillator. Owing to the piezoelectric effect an alternating signal proportional to the strain will then appear across $a_1'b_1$. The frequency dependence of this signal is then directly related to the resonance curve. The much larger pickup signal across $a_1'b_1$ is excluded by having a further rod a made of glass which is identical to q in form and the disposition of electrodes. The output across $a_2'b_2$ is subtracted from the output across $a_1'b_1$. The method has been used to obtain resonance strain curves of a composite piezoelectric vibrator in order to measure the rigidity modulus and the absorption of sound in solids at 109 kc/sec.

ASSOCIATION: Permskiy gosudarstvennyy universitet
(Perm' State University)

SUBMITTED: November 24, 1961

Card 2/3

PIROZHKOV, [illegible].I.

Plotting of the resonance deformation curve of a piezoelectric vibrator. Prib. i tekh. eksp. 7 no.3:160-161 My-Je '62. (MIRA 15:7)

1. Permskiy gosudarstvennyy universitet.
(Ultrasonic waves) (Vibrators)

24.1800 (1063, 1482)
24.1200 (1109, 1147, 1327)

29064
S/120/61/000/004/014/034
E032/E514

AUTHOR: Pirozhkov, B. I.

TITLE: Measurement of the velocity and absorption of sound in solids

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No. 4, pp. 104-106

TEXT: The present author describes a direct method of determining the resonance strain curve using longitudinal oscillations. The principle of the experiment is illustrated in Fig.1. The source of ultrasonic vibrations is in the form of the cylindrical rod Q cut from a quartz crystal along the X-axis. The material under investigation A is also cylindrical in form and is attached to Q as shown in Fig. 1. The electrodes are in the form of thin circular metal foils 1, 2 and 3 which are attached to the cylindrical surface of the rod. When the electrodes 1 and 2 are connected to the oscillator, the crystal executes longitudinal vibrations while an alternating voltage appears between 3 and 2 and is the sum of the direct piezoelectric voltage and the electrostatic contribution due to electrode 1. The latter is unavoidable owing to the proximity of 3 and 1. The resonance strain curve may be

X

Card 1/4

obtained by separating out the piezo signal and feeding it into the measuring device (valve voltmeter cathode-ray oscillograph). The useful signal is extracted from the total signal by means of the differential arrangement shown in Fig. 1 in which G is a glass rod but otherwise identical to Q (less the specimen A). Thus, the voltage across 3' and 2 is due to the induced signal only. The voltages induced in 3 2 and 3 2 are arranged to be equal in magnitude and opposite in phase. The amplitude equality is achieved by adjusting the capacitors q. The amplitudes are presumed to be equal when the output signal indicated by the measuring device is a minimum. The resonance frequency f_r of the rod and the half-width δ of the curve are then determined from the resonance strain curve. The velocity of sound C (modulus of the complex velocity) and the phase shift θ between the strain and the stress are determined from the following formulas:

$$C = 2\pi f_r \ell/r \quad \text{and} \quad z = r \exp(-i\theta/2)$$

where z is the root of

$$\mathrm{tg}\, z/z = a + ib \qquad (1)$$

1960.

When both ends of the composite rod are free and the quartz vibrates on the fundamental frequency

$$a = - \frac{P_o}{P} \frac{\mathrm{tg}\, \pi f_r/f_o}{\pi f_r/f_o} ;$$

$$b = \left[1 + \frac{P_o}{P} \frac{1}{\cos^2 \pi f_r/f_o} + \left(\frac{P_o}{P} \frac{\mathrm{tg}\, \pi f_r/f_o}{\pi f_r/f_o} \right)^2 r^2 \cos \theta \right] \frac{b}{\sqrt{3 f_r}}$$

Here P_o and f_o are the weight and the natural frequency of the quartz rod, respectively, and P and ℓ are the weight and length of the specimen, respectively. The method has been used with amorphous glucose in the temperature range 0 - 45°C. The quartz rod was 5 mm in diameter, 25 mm in length and had a resonance frequency of 109 kc/s. The glucose specimens were in the form of rods, 2.3 and 3.0 mm in diameter. The use of specimens whose cross-section is smaller than that of quartz ensures a high Q-value for the composite vibrator. The specimens had a length approximately equal to λ/2. Fig.3 shows a typical resonance curve

29624

Measurement of the velocity ... S/120/61/000/004/014/034
E032/E514

for the composite rod. The broken line shows the level of the uncompensated induced pick-up. Acknowledgments are expressed to M. I. Kornfel'd for assistance and advice. There are 4 figures and 8 references: 6 Soviet and 2 non-Soviet. The English-language reference reads as follows: Ref.8: D. W. Dye, Pract. Phys. Soc., 1926, 38, 399.

ASSOCIATION: Permskiy gosudarstvennyy universitet
(Perm State University)

SUBMITTED: July 1, 1960

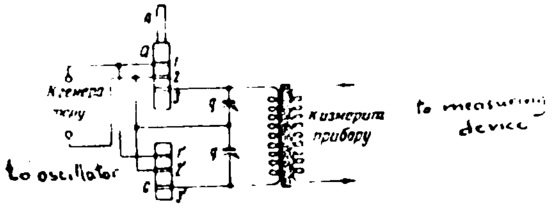


Fig.1

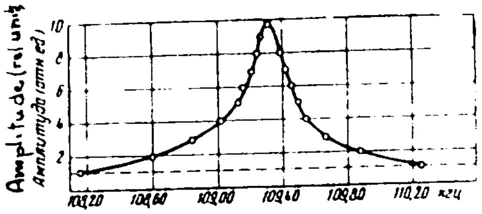


Fig.3

Card 4/4

PIROZHKOV, B.I.

Using frequency dividers and wavemeters in measuring electric oscillation frequency in the 2,000 to 20,000 hertz range. Prib. i tekh. eksp. no.5:120-121 S-O '57. (MIRA 10:12)

1. Molotovskiy gosudarstvennyy universitet im. A.M. Gor'kogo.
(Electronic measurements) (Pulse techniques (Electronics))

[illegible] effect of [illegible]

[illegible]

[illegible] Moscow [illegible]

Category : USSR/Acoustics - Ultrasound J-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2147

Author : Pirozhnikov, L.B.
Title : Ultrasonic Methods for Control of Quality of Concrete in Products

Orig Pub : Primeneniye ul'traakustiki k issled veshchestva. Vyp [illegible] M., MOPI, [illegible]
175-188

Abstract : Brief discussion of the fundamentals of non-destructive testing of concrete and of certain ultrasonic methods of investigation of solid bodies. An experimentally-established correlation between the speed of propagation of ultrasonic waves $\underline{v}$ (cm/sec) and the quality of concrete is given: $v > 4500$--excellent quality; $4000 < v < 4500$--good, $3300 < v < 4000$--satisfactory, $2300 < v < 3300$-- poor; $v < 2300$--very poor. An ultrasonic pulse instrument for concrete testing, based on measuring the travel time of a pulse through a controlled concrete specimen, is described. This method is also applicable for the control of strength of other structural materials. It can be used to produce concrete structures up to 30 m thick. A graph is given for the correlation between the strength of the concrete and the speed of ultrasonic waves in the concrete. A diagram and a brief description are given of an instrument to test concrete by impact methods. The advantages of the ultrasonic method of testing structural materials are evaluated, as are some of its applications

Card : 1/1

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

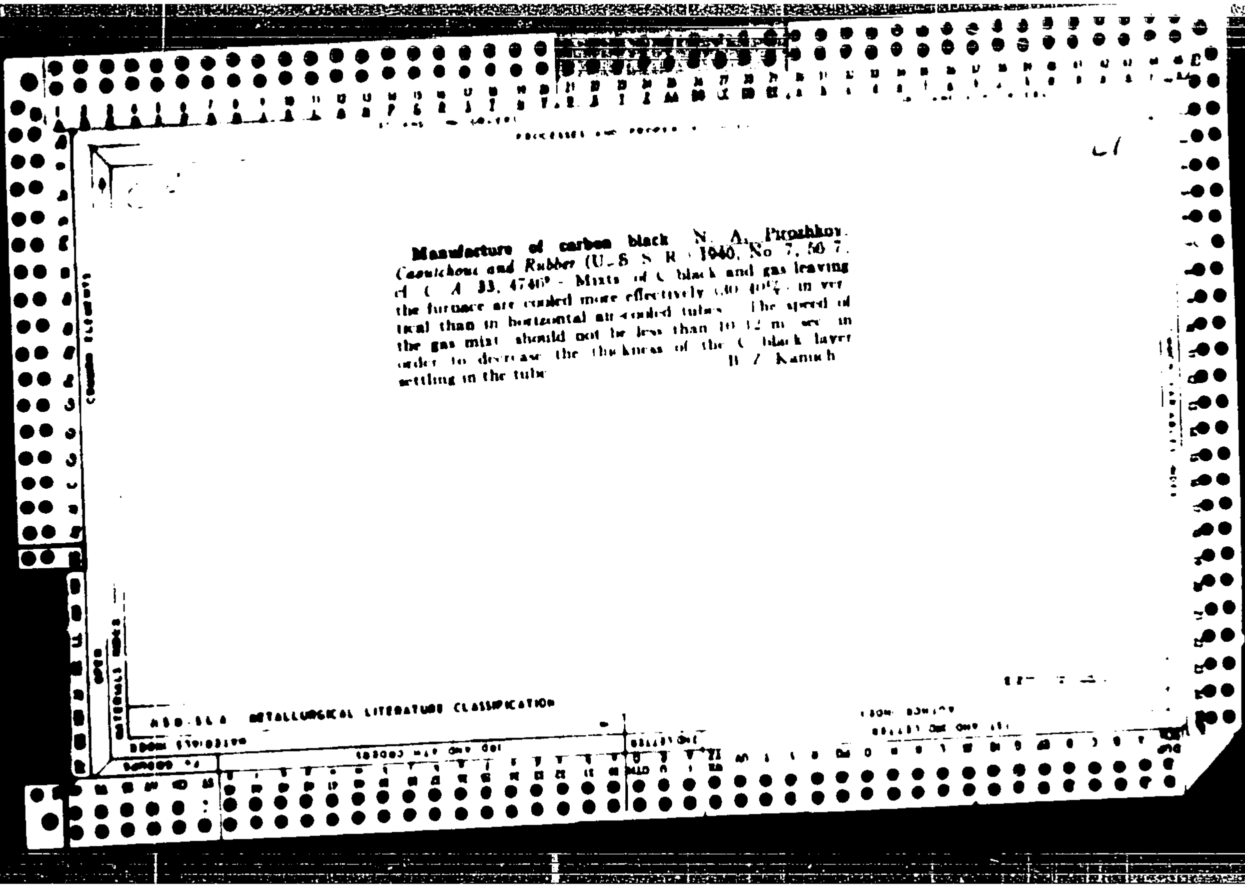
3RD AND 4TH ORDERS

CA

21

Methods for evaluating "nondusting" carbon black N. A. Pirozhkov. *Caoutchouc and Rubber* (U. S. S. R.) 1939, No. 10, 45-9; *Khim. Referat. Zhur.* 1940, No. 3, 101. App. and method devised by P. (mainly for testing soot in the form of balls) are described for detg. the degree of compression of "nondusting" carbon black from the wt. and vol. no., fractional compn. from the size of the aggregates and by the method of sieve analysis, residue, av. resistance of the aggregates to abrasion and of the individual carbon-black balls to crushing, formation of dust in a current of air. Carbon black in the form of balls possesses many valuable properties. W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



Manufacture of carbon black. N. A. Pirozhkov. *Caoutchouc and Rubber* (U. S. S. R.) 1940, No 7, 50-7; cf. C. A. 33, 4740^9.—Mixts. of C black and gas leaving the furnace are cooled more effectively (30-40%) in vertical than in horizontal air-cooled tubes. The speed of the gas mixt. should not be less than 10-12 m./sec. in order to decrease the thickness of the C black layer settling in the tube. B. Z. Kamich

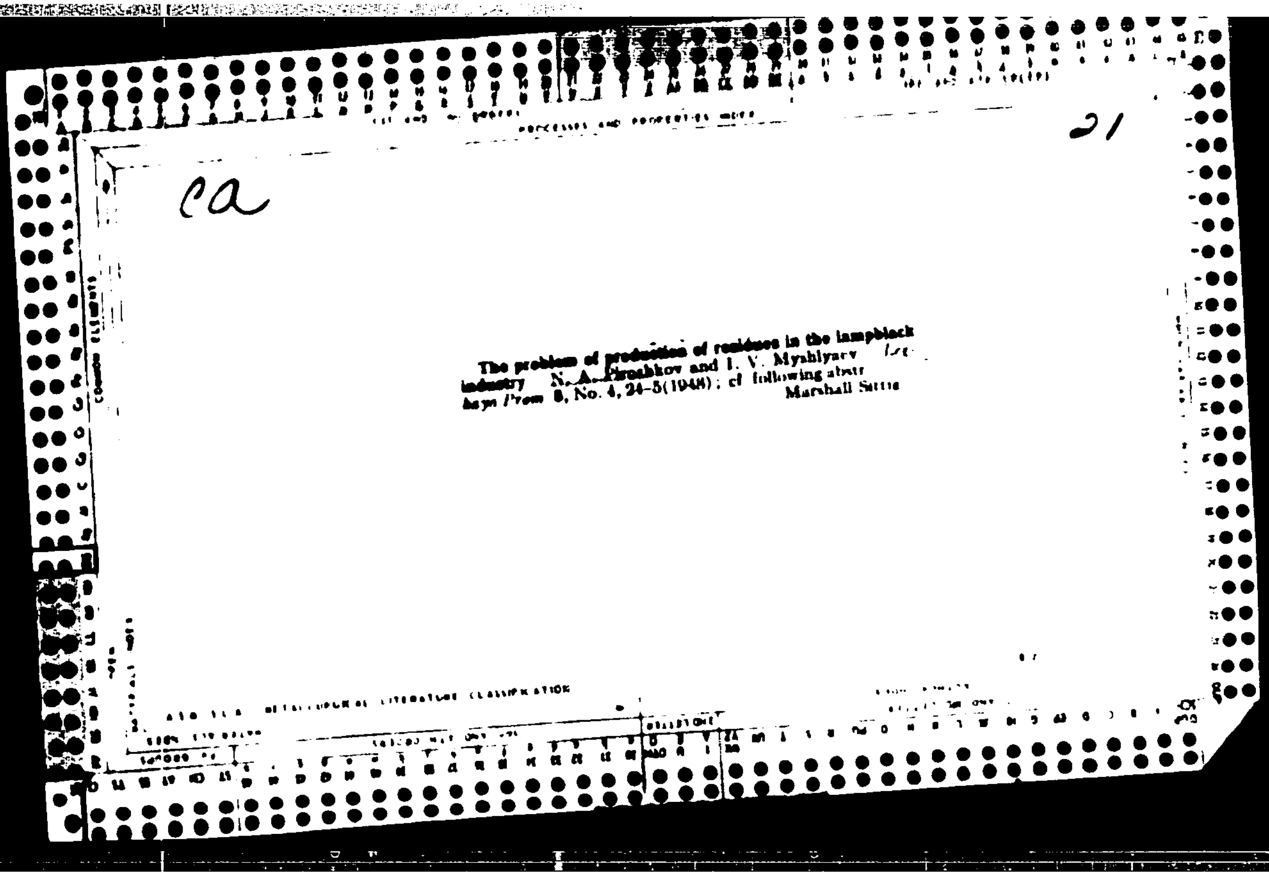
ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION

Ca

21

New developments in the manufacture of carbon black. N. A. Piroshkov. *Kauchuk i Rezina* 1941, No. 6, 41-3; *Chem. Zentr.* 1942, II, 2431.—In the manuf. of C black from mineral oil, the yields are increased by screening the flames and, by the installation of air bolters, the quality is improved. In the manuf. of thermal black in Borislav, the reflectors on the burners were enlarged, the supply of air was more closely controlled, and other details were improved, so that the yields increased and the operations were simplified. C. C. Davis

METALLURGICAL LITERATURE CLASSIFICATION



ca

21

The problem of production of residues in the lampblack industry. N. A. Piroshkov and I. V. Myshlyaev. Legkaya Prom. 8, No. 4, 24-5(1948); cf. following abstr.

Marshall Sittig

PIROZHKOV, N. A.

Production of carbon black; textbook Moskva, Gos. nauchno-tekhn. izd-vo legkoi promyshl., 1951. 118 p. (54-43429)

TP951.P5

1. Carbon-black

NIKOLIN, A.V., glav. revizor po bezopasnosti sudokhodstva, red.; PIROZHKOV, N.I., kapitan-nastavnik, red.; POLETAYEV, L.A., kapitan-nastavnik, red.; KOZIN, N.A., kapitan, red.; KUZNETSOV, B.Yu. kapitan, red.; TARASOV, A.G., kapitan, red.; VYKHODTSEV, P.K., red.; PER'YAKOV, V.V., red.; SIDOROV, F.G., red.; SOLOV'YEV, V.B., red.; SHIRINKIN, A.D., red.; SHCHEPETOV, I.A., red.; SMIRNOV, F.A., red.; KOSTIN, V.F., red.; SAVOSTIN, N.D., red.; FILYASOV, K.A., red.; IVANOV, A.I., red.; LOBANOV, Ye.M., red.izd-va; REMNEVA, T.T., tekhn. red.

[Rules for the navigation on inland shipping routes of the R.S.F.S.R.] Pravila plavaniia po vnutrennim sudokhodnym putiam RSFSR. Vvedeny v deistvie s 15 marta 1963. g. prikazom ministra rechnogo flota No.33 ot 28 fevralia 1963. g. Moskva, Izd-vo "Rechnoi transport," 1963. 98 p. (MIRA 16:6)

1. Russia (1917- R.S.F.S.R.) Ministarstvo rechnogo flota. (Inland navigation--Laws and regulations)

78-3-4-37/38

AUTHORS: Baranov, V. I., B[illegible], A. [illegible], [illegible]enko, K. I., Pirozhkov, S. V.

TITLE: ~~The Mechanism of~~ the Migration of Radium- and Thorium Isotopes (O mekhanizme migratsii izotopov radiya i toriya)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol 3, Nr 4, pp 1054-[illegible] (USSR)

ABSTRACT: The reaction of radium and thorium isotopes produced by the radioactive transformation in the interaction with soluble compounds the crystal lattices of which are isomorphous with radium or thorium, was investigated. The experiments were carried out with barium salts isomorphous with radium as well as with cerium salts like CeO_2 and $Ce_2(C_2O_4)\cdot 10\,H_2O$ isomorphous with the thorium isotope Th 228. The time dependence of the desorption of Ra 228, Ra 224 and Th 228 from barium carbonate in barium chloride solution was determined. The desorption of radium is greater than that of thorium. Furthermore the desorption of radium- and thorium isotopes in hydrochloric acid and aluminum chloride solutions was investigated.

Card 1/2

78 3 4 35/38

The Mechanism of the Migration of Radium and Thorium Isotopes

The desorption of Th 228 acquires the following order depending on the solution medium: $H^+ - Al^{3+} - Ba^{2+}$. Summarizingly it was stated that the thorium isotopes formed in the decay less easily pass over into the solution than radium isotopes independent of the fact whether the solid phase from which they emerge is isomorphous or not. This reaction of Th 228 is caused by its characteristic chemical features and not by the crystal form of the initial compounds. There are 7 tables and 1[illegible] references, 17 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 11, 1957

Card 2/2

LEBEDEV, I.A.; PIROZHKOV, S.V.; RAZBITNOY, V.M.; YAKOVLEV, G.N.

Complex formation between Am^{3+} and oxalate ions. Radiokhimiia [illegible]
no.3:351-356 '60. (MIRA 13:[illegible])
(Americium compounds) (Oxalates)

LEBEDEV, I.A.; PIROZHKOV, S.V.; YAKOVLEV, G.N.

Determination of the composition and instability constants of oxalate, nitrate, and sulfate complexes of Am(III) and Ce(III) by means of ions exchange. Radiokhimiia 2 no.5:549-558 '60.
(MIRA 13:10)

(Americium compounds) (Cerium compounds)

2189

S/186/61/003/006/010/010
E040/E185

24.6210

AUTHORS: Lebedev, I.A., Pirozhkov, S.V., Semochkin, V.M., and Yakovlev, G.N.

TITLE: Separation of protactinium by the ion exchange method and properties of some protactinium compounds

PERIODICAL: Radiokhimiya, v.3, no.6, 1961, 760-761

TEXT: Protactinium (Pa^{231}) was separated from neutron-irradiated specimens of thorium oxide enriched with ionium (Th-30). The specimen weighed 6.3 g and contained 2.01 g of ionium. Purification of the products of the reaction was carried out in an ion-exchange column made of Teflon and charged with Dowex-1X8 resin ground to 500 mesh. Uranium, protactinium and iron (retained on the resin) were washed out with 250 mℓ of 0.5N HCl + 0.1N HF. The α-radiation of the sample was determined in an ionizing spectrometer in conjunction with a 50-channel α-analyzer. 82% of the radiation was found to come from protactinium and 18% from uranium, which corresponds to 99.9% Pa^{231} and 0.1% U^{232} by weight. Measurement of the total radiation of the sample showed it to contain 11.8 mg of protactinium and 11 μg of U^{232}.

X

Card 1/2